

IN THE CLAIMS:

Please amend claims 1-10 and add claims 11-20 as follows:

CLAIMS

1. (Currently Amended) A Ssensor comprising a plurality of ~~with~~ components containing silicon and having a ~~on whose~~ sensitive detection element, where electrical signals are ~~can be~~ read by ~~means of~~ a silicon semiconductor system, where characterized ~~in that~~ the components containing silicon are coated with a layer of hydrophobic material ~~to prevent interfering signals from moisture.~~

2. (Currently Amended) The Ssensor of ~~according to Cclaim 1,~~ where ~~in which~~ the hydrophobic layer comprises ~~consists of~~ molecular chains that form a stable bond to silicon.

3. (Currently Amended) The Ssensor ~~according to one of the foregoing claims 2,~~ where ~~in which~~ the molecular chains form a monolayer.

4. (Currently Amended) The Ssensor ~~according to one of the foregoing claims 1,~~ where ~~in which~~ the components containing silicon comprise ~~consist of~~ silicon, silicon nitride, or oxidized silicon.

5. (Currently Amended) The Ssensor ~~according to one of the foregoing claims 1,~~ where ~~in which~~ the silicon semiconductor system comprises ~~is~~ a field effect transistor, (FET).

6. (Currently Amended) ~~The S~~S~~ensor according to one of the foregoing claims 1,~~
~~where the sensor comprises a sensor from the group including with a gas sensor, a~~
~~pressure sensor, and or an acceleration sensor, being present.~~

7. (Currently Amended) ~~A M~~M~~ethod for producing a gas sensor with a gas-sensitive~~
~~layer integrated in a field effect transistor (FET) with components containing silicon, on~~
~~which layer electrical signals corresponding to a target gas that is present are can be read~~
~~by means of the FET, the method comprising the steps of: in which~~

~~coating a plurality of components containing silicon are coated with a~~
~~hydrophobic layer by means of silanization; and~~

~~mounting additional other components belonging to the FET, such as a hybrid~~
~~electrode/gate, are mounted subsequently.~~

8. (Currently Amended) ~~The M~~M~~ethod of according to C~~claim 6, where in which a
~~silane is used for the silanization.~~

9. (Currently Amended) ~~The M~~M~~ethod of according to C~~claim 7, where in which a
~~trichlorosilane is used for the silanization.~~

10. (Currently Amended) ~~The M~~M~~ethod of according to C~~claim 8, where in which an
~~n-octadecyltrichlorosilane (C₁₈H₃₇Cl₃Si) is used for the silanization.~~

11. (New) A sensor comprising at least one component containing silicon and having a sensitive detection element, where the at least one component containing silicon includes a coating layer of hydrophobic material.
12. (New) The sensor of claim 11, where the hydrophobic coating layer comprises molecular chains that form a stable bond to silicon.
13. (New) The sensor of claim 12, where the molecular chains form a monolayer.
14. (New) The sensor of claim 11, where the sensor comprises a gas sensor.
15. (New) The sensor of claim 11, where the sensor comprises a pressure sensor.
16. (New) The sensor of claim 11, where the sensor comprises an acceleration sensor.
17. (New) The sensor of claim 11, where the hydrophobic coating layer is applied by silanization.
18. (New) The sensor of claim 17, where a silane is used for the silanization.
19. (New) The sensor of claim 17, where a trichlorosilane is used for the silanization.

20. (New) The sensor of claim 17, where an n-octadecyltrichlorosilane ($C_{18}H_{37}Cl_3Si$) is used for the silanization.